

R. Bpu10I α

MGVEQEWIKNITDMYQSPELIPSHASNLLHQLKREKRNEKLKKALEIITP 50
 NYISYISILLNNHNMTRKEIVILVDALNEYMNTLRHPSVKSVFESHQADFY 100
 SSVLPEFFNLLFRNLIKGLNEKIKVNSQKDIIIDCIFDPYNEGRVVFKKK 150
 RVDVAIILKNKFVFNVEISDFAIPLVAIEEIKTNLDKNMLSGIEQSVDSL 200
 KETFPCLCYICITELADFAIEKQNYASTHIDEVFILRKQKRGPVRRGTPL 250
 EVVHADLILEVVEQVGEHLSKFKDPIKTLKARMTEGYLIKKGKG 294

R. Bpu10I β

MTQIDLSNTKHGSILFEKQKNVKEKYLQQAYKHYLYFRRSIDGLEITNDE 50
 AIFKLTQAANNYRDNVLYLFESRPNSGQEAFRYTILEEFFYHLFKDLVKK 100
 KFNQEPSSIVMGKANSYVSLSFSPESFLGLYENPIPYIHTKDQDFVLGCA 150
 VDLKISPKNELNKENETEIVVPVIAIEECKTYIERNMLDSCAATASRLKAA 200
 MPYCLYIVASEYMKMDQAYPELTDIDEVFILCKASVGERTALKKKGLPPH 250
 KLDENLMVELFHMVERHLNRVWWSPEALSRRGRVIGRP 288

FIGURE 1

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Subunit	Mutation*	Cleavage dsDNA	of Nicking activity
<i>Bpu</i> 10I α	D171A	+++	-
<i>Bpu</i> 10I α	E180A	++	+
<i>Bpu</i> 10I α	E180Q	+	++
<i>Bpu</i> 10I β	E168A	+++	-
<i>Bpu</i> 10I β	E177A	-	+++
<i>Bpu</i> 10I β	E177Q	+	+++
<i>Bpu</i> 10I β	K179	-	-

FIGURE 2

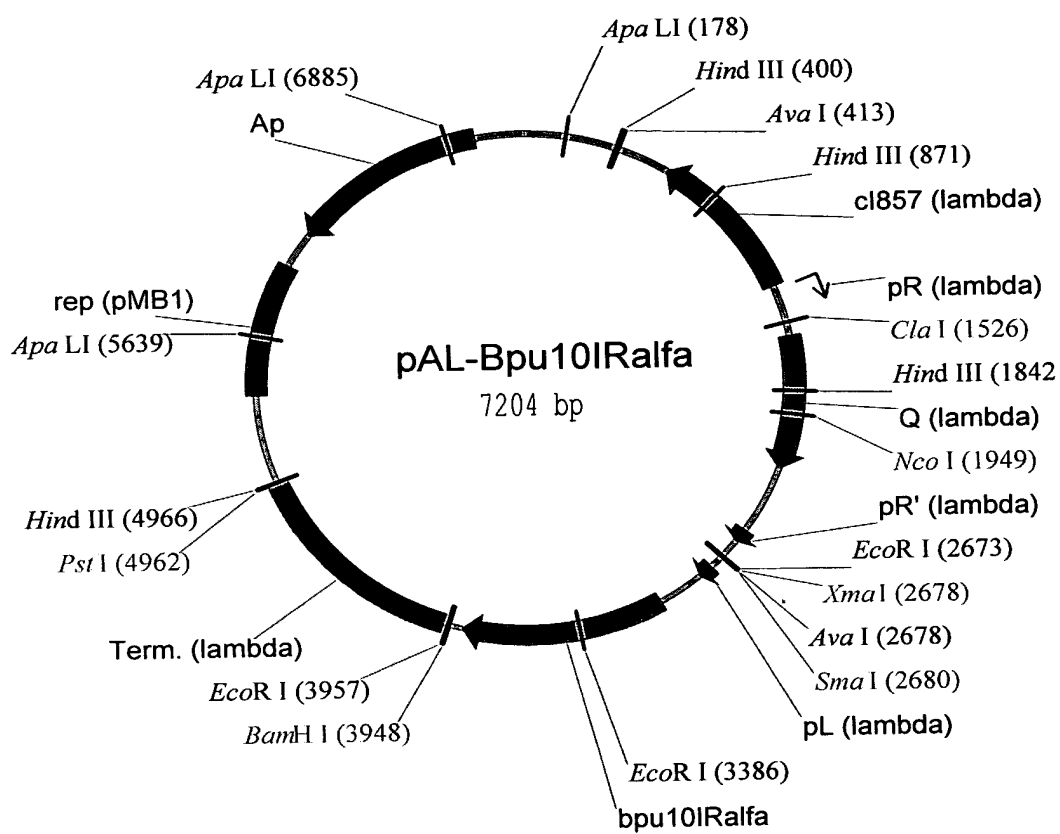


FIGURE 3

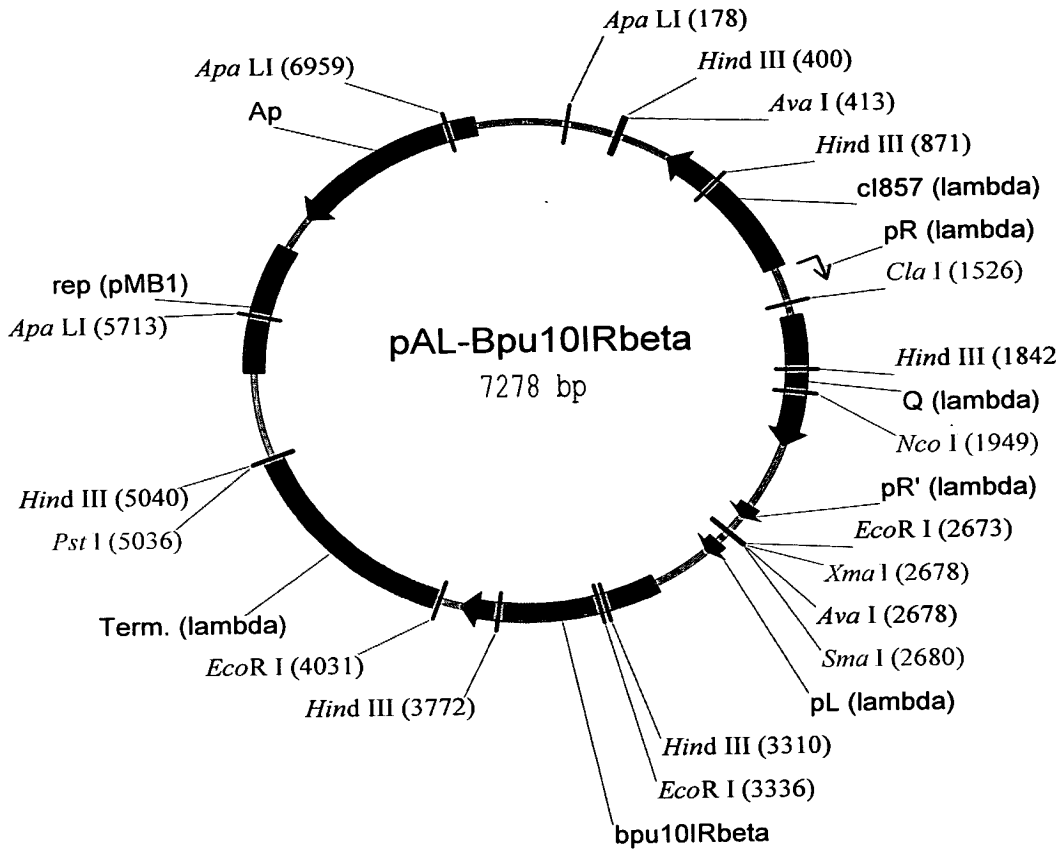


FIGURE 4

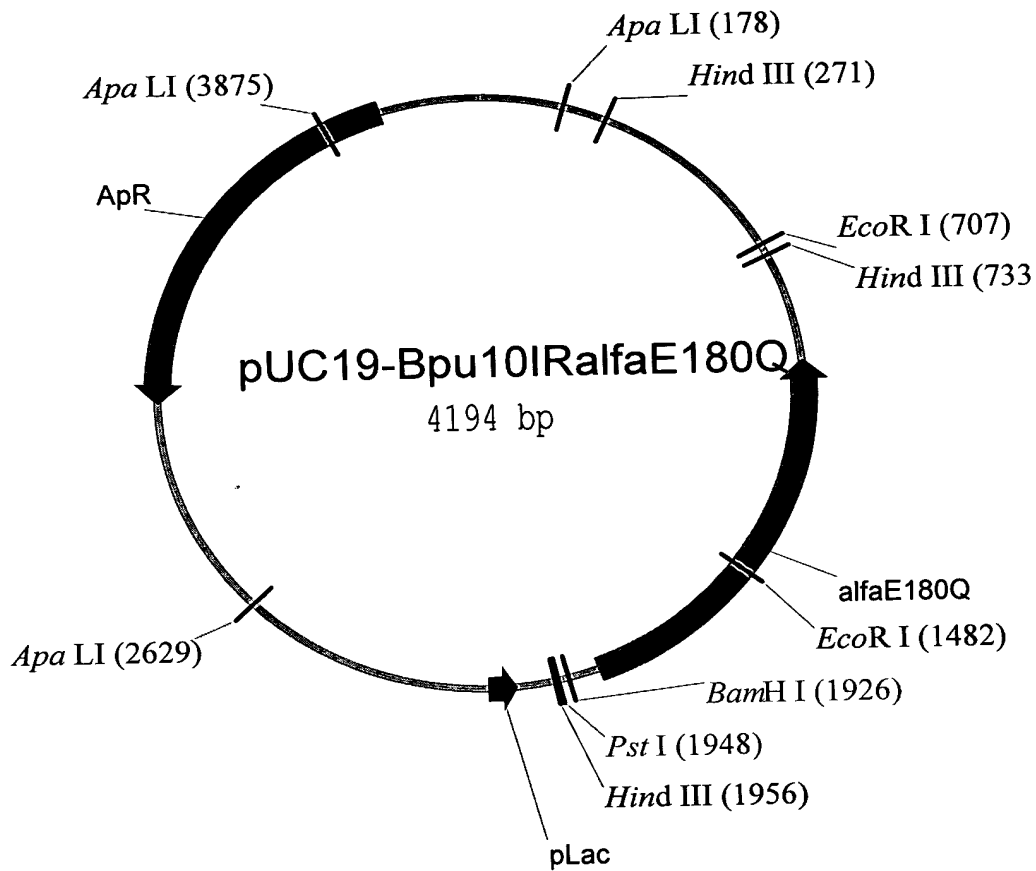


FIGURE 5

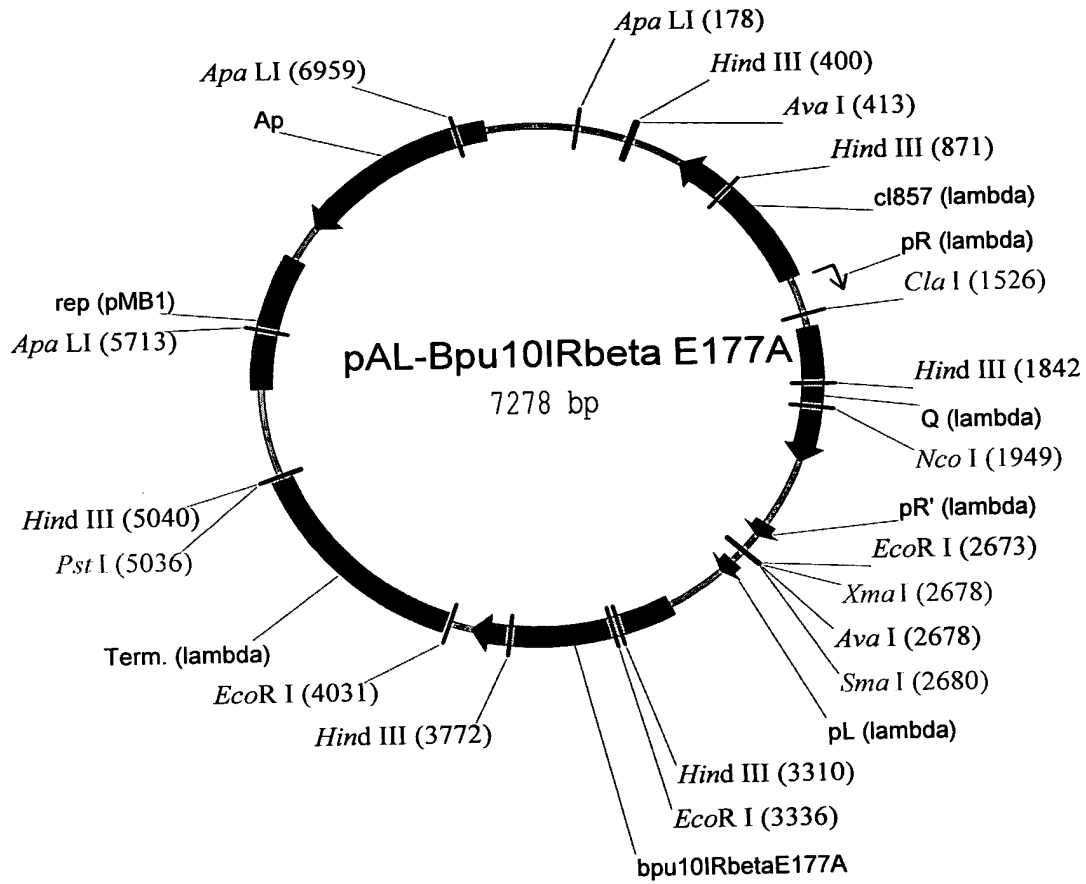


FIGURE 6

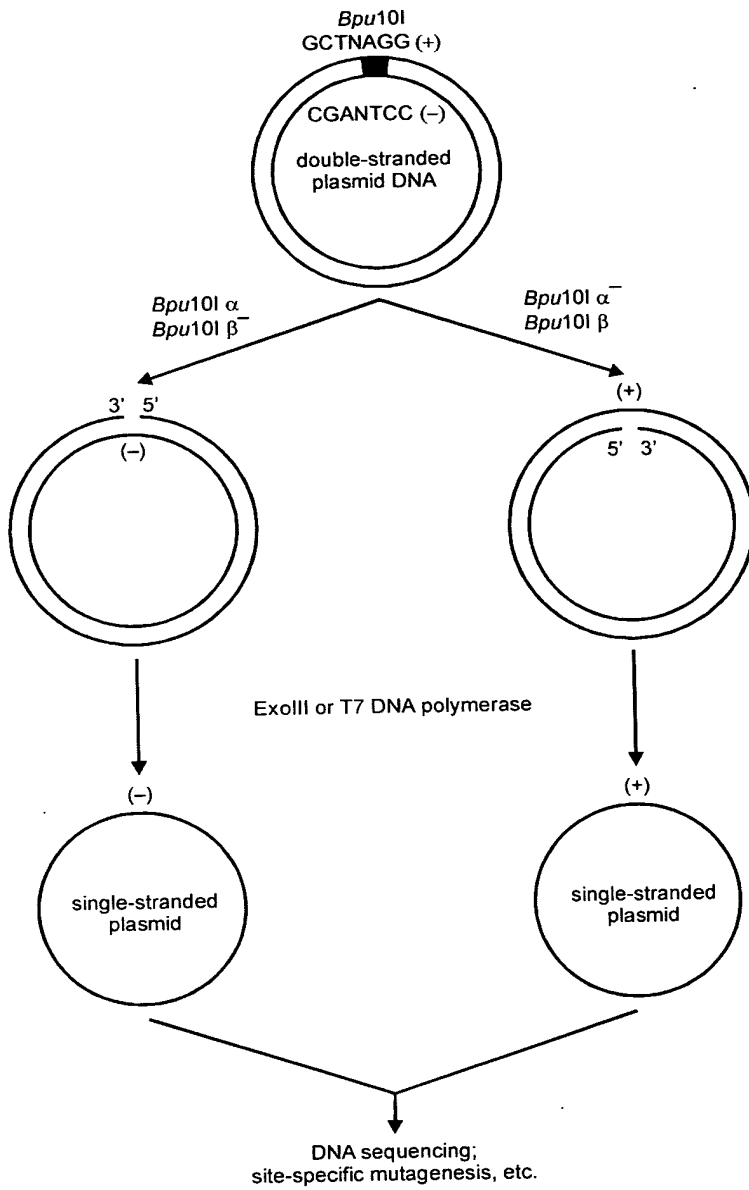


FIGURE 7

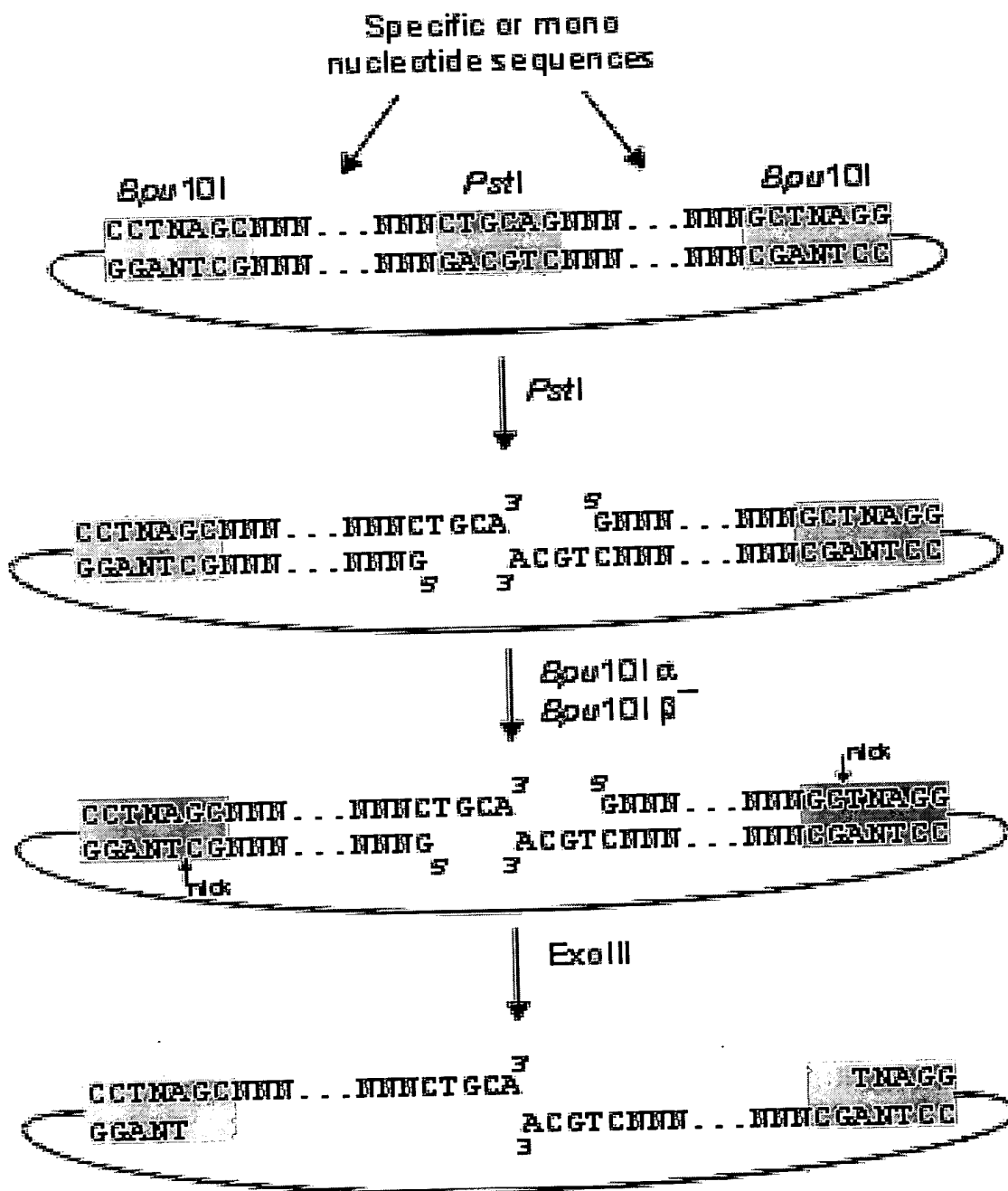


FIGURE 8

↓ 5 min. 95°C, ligation

FIGURE 9

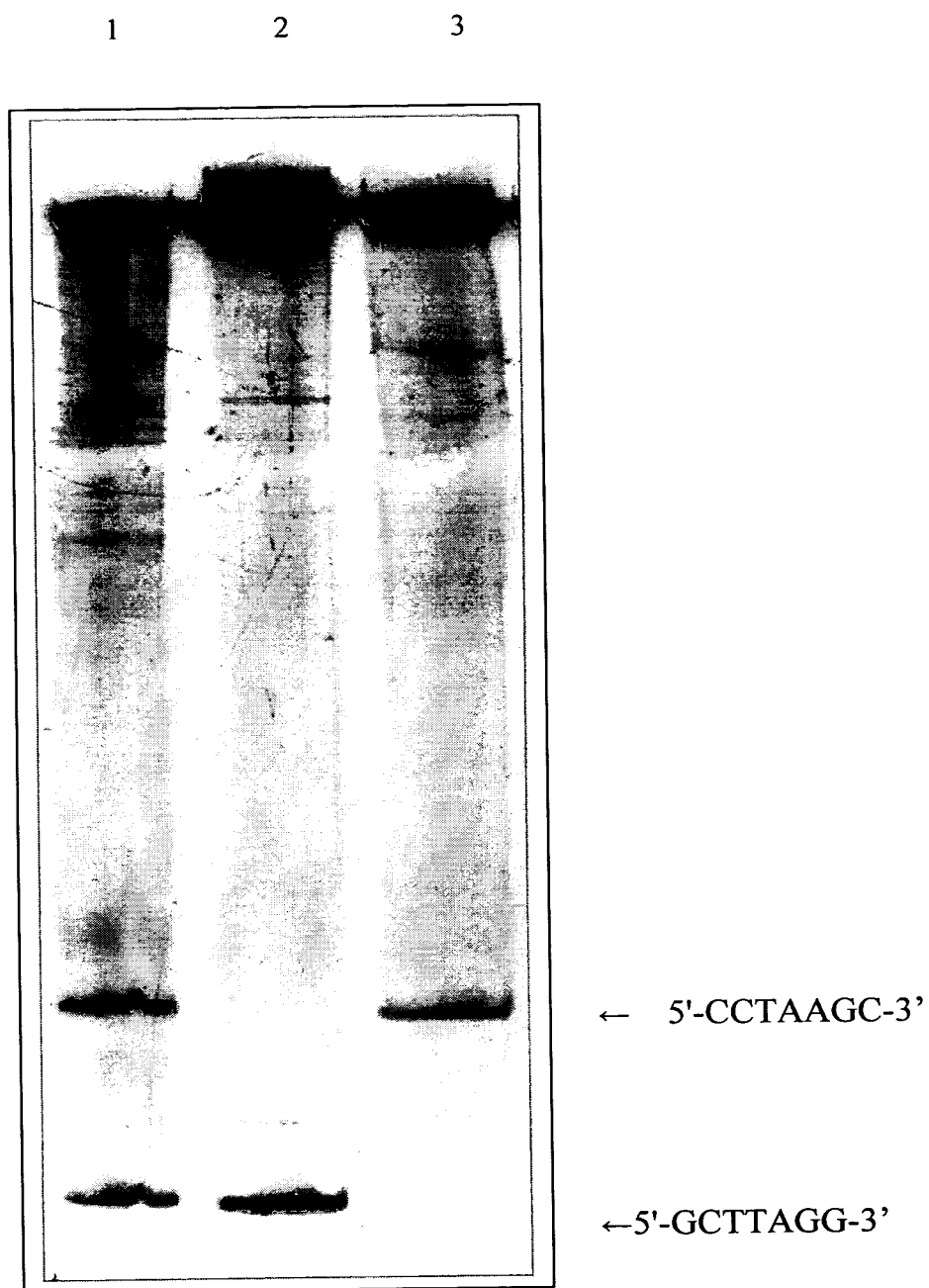


FIGURE 10

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1 2 3 4 5 6 7 8 9 10

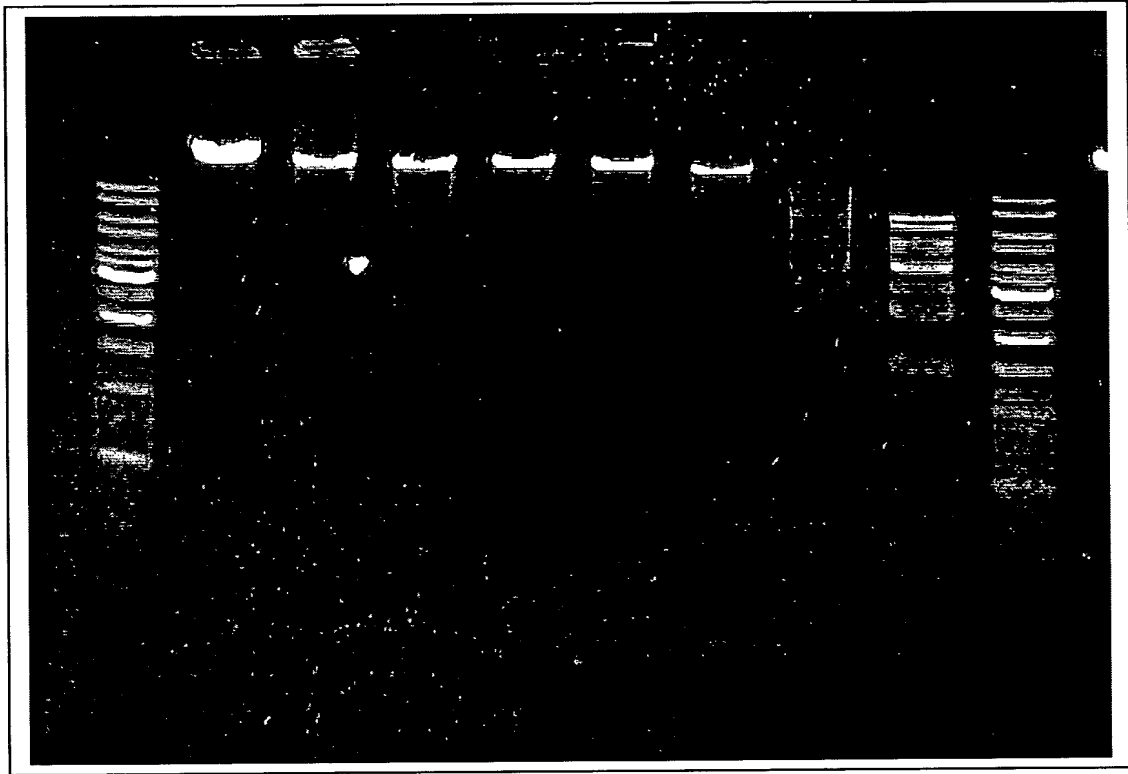


FIGURE 11